

Appendix 1

Wildlife Species in Action Area

FISH AND WILDLIFE SPECIES IN ACTION AREA

<i>SPECIES</i>	COMMON NAME	FEDERAL STATUS	LOCATION FOUND
<i>FISH</i>			
<i>Eucyclogobius newberryi</i>	Tidewater Goby	E	Mendocino, San Diego, Del Norte, Humboldt and Orange Counties
<i>Thaleichthys pacificus</i>	Pacific Eulachon/Smelt	T(P)	Sacramento, Klamath and Russian Rivers and Humboldt Bay
<i>Hypomesus transpacificus</i>	Delta Smelt	T	Sacramento River and San Joaquin Delta
<i>Oncorhynchus tshawytscha</i>	Chinook Salmon – California Costal	T	Klamath and Russian River
<i>Oncorhynchus tshawytscha</i>	Chinook Salmon – Sacramento River Winter-Run	E	Sacramento River from Keswick Dam to Chips Island in the Sacramento-San Joaquin Delta
<i>Oncorhynchus tshawytscha</i>	Chinook Salmon - Central Valley Spring-Run	T	Lower American River, Sacramento River and the San Joaquin Delta
<i>Oncorhynchus tshawytscha</i>	Chinook Salmon - Central Valley Fall/Late Fall- Run	T	Lower American River, Sacramento River and the San Joaquin Delta
<i>Oncorhynchus kisutch</i>	Coho Salmon – Central California Coast	E	Delta and San Lorenzo River
<i>Oncorhynchus kisutch</i>	Coho Salmon – Northern California Costal Range	T	Trinity River to Punta Gorda
<i>Acipenser medirostris</i>	Green Sturgeon	T(P)	Statewide California
<i>Oncorhynchus mykiss</i>	Steelhead Trout – Central California Coastal	T	Lower American River, Sacramento River and the San Joaquin Delta
<i>Oncorhynchus mykiss</i>	Steelhead Trout – Southern California	E	San Luis Obispo County to Mexico
<i>Oncorhynchus mykiss</i>	Steelhead Trout – South Central California	T	Pajaro River
<i>Oncorhynchus mykiss</i>	Steelhead Trout – Central Valley	T	Sacramento, San Joaquin and Feather Rivers
<i>Totaba macdonaldi</i>	Totaba	E	Southern California waterways to Mexico
<i>Pogonichthys macrolepidotus</i>	Sacramento Splittail	NA	Sacramento River, its major tributaries, San Joaquin River and the San Joaquin Delta

SPECIES	COMMON NAME	FEDERAL STATUS	LOCATION FOUND
<i>Mylopharodon conocephalus</i>	Hardhead	NA	Sacramento-San Joaquin River system, absent from valley reaches
<i>Spirinchus thaleichthys</i>	Longfin Smelt	NA	San Pablo, San Francisco and Suisun bays
<i>Lampetra ayresi</i>	River Lamprey	NA	Coastal streams from San Francisco Bay to Alaska
<i>Archoplites interruptus</i>	Sacramento Perch	NA	Clear Lake and Alameda Creek.
<i>Alosa sapidissima</i>	American Shad	NA	Sacramento River, its major tributaries, the San Joaquin River and the San Joaquin Delta
<i>Morone saxatilis</i>	Striped Bass	NA	Sacramento River, its major tributaries, and the San Joaquin Delta.
<i>Hesperoleucus symmetricus</i>	California Roach	NA	Sacramento-San Joaquin and Pajaro-Salinas River drainages
PLANTS			
<i>Orcuttia californica</i>	California Orcutt Grass	E	East Sacramento County Vernal Pools
<i>Baccharis vanessae</i>	Encinitas Baccharis	T	Central San Diego County
<i>Fremontodendron mexicanum</i>	Mexican Flannelbush	E	Riverside and San Diego Counties
<i>Pogogyne nudiuscula</i>	Ota Mesa-mint	E	Southern California Vernal Pools
<i>Deinandra conjugens</i>	Ota Tarplant	T	San Diego County
<i>Ambrosia pumila</i>	San Diego Ambrosia	E	Riverside and San Diego Counties
<i>Eryngium aristulatum</i>	San Diego Button-Celery	E	Ramona Grasslands, San Diego County
<i>Acanthomintha ilicifolia</i>	San Diego Thornmint	T	San Diego County
<i>Navarretia fossalis</i>	Spreading Navarretia	T	Statewide California
<i>Monardella linoides</i>	Willowy Monardella	E	Statewide California
INVERTEBRATES			
<i>Streptocephalus woottoni</i>	Riverside Fairy Shrimp	E	Riverside Vernal Pools

SPECIES	COMMON NAME	FEDERAL STATUS	LOCATION FOUND
<i>Branchinecta sandiegonensis</i>	San Diego Fairy Shrimp	E	San Diego Vernal Pools
<i>Euphydryas editha</i>	Quino Checkerspot Butterfly	E	Riverside County
<i>Desmocerus californicus dimorphus</i>	Valley Elderberry Longhorn Beetle	T	Elderberry along rivers from South Shasta County through Central Valley into Kern County
<i>Pacifastacus fortis</i>	Shasta Crayfish	E	Shasta County
AMPHIBIANS			
<i>Bufo californicus</i>	Arroyo Toad	E	Monterey, Los Angeles and San Bernardino Counties
<i>Rana aurora</i>	California Red-Legged Frog	T	Costal Drainages Central California
<i>Rana muscosa</i>	Mountain Yellow-Legged Frog	E, C	South Plumas to South Tulare Counties and East to Nevada County
BIRDS			
<i>Polioptila californica</i>	Coastal California Gnatcatcher	T	Sage Scrub Southern California
<i>Vireo bellii</i>	Least Bell's Vireo	E	Southern California, Santa Ana River Basin
<i>Empidonax traillii</i>	Southwestern Willow Flycatcher	E	Southern California
<i>Charadrius alexandrinus</i>	Western Snowy Plover	T	Southern California
<i>Coccyzus americanus occidentalis</i>	Western Yellow-Billed Cuckoo	E	Kern County
<i>Falco peregrinus anatum</i>	American Peregrine Falcon	DM	Statewide California
<i>Haliaeetus leucocephalus</i>	Bald Eagle	T, DM	Costal California
MAMMALS			
<i>Ovis canadensis</i>	Peninsular Bighorn Sheep	E	Riverside, San Diego and Imperial Counties
REPTILES			
<i>Thamnophis gigas</i>	Giant Garter Snake	T	Statewide California
<p>1. E=Endangered; T=Threatened; C=Candidate; DM=Delisted Taxon Recovered, ongoing five year survey to ensure numbers continue to increase.</p>			

Appendix 2
Refill Agreement for 2009 Water Transfer

**REFILL AGREEMENT FOR
2009 WATER TRANSFER FROM
PLACER COUNTY WATER AGENCY TO
SAN DIEGO COUNTY WATER AUTHORITY**

THIS AGREEMENT is made as of the 22ND day of May, 2009, by and between the United States Bureau of Reclamation ("Bureau" or "Reclamation") and Placer County Water Agency ("Agency" or "PCWA"), a public agency in the State of California.

RECITALS

A. The Placer County Water Agency is a public agency created and existing pursuant to the provisions of the Placer County Water Agency Act (California Statutes 1957, Chapter 1234, as amended), and is empowered to enter into contracts to sell water for use outside of Placer County; and

B. Placer County Water Agency owns and operates the Middle Fork Project ("MFP"), which includes French Meadows and Hell Hole Reservoirs ("MFP Reservoirs") and holds water rights for that project pursuant to permits issued on Applications 18085 and 18087 by the State Water Rights Board, predecessor to the State Water Resources Control Board; and

C. The Bureau operates the Central Valley Project, of which Folsom Reservoir, located downstream of the Middle Fork Project, is a part; and

D. The Agency intends to enter into an agreement with the San Diego County Water Authority (SDCWA) to implement a one-year temporary transfer of 20,000 acre feet of water stored in the MFP Reservoirs to SDCWA ("Transfer Project"); and

E. The Agency's 2009 agreement with SDCWA is conditioned upon execution of an agreement between the Bureau and the Agency establishing conditions on the Agency's refilling of its MFP Reservoirs (following the transfer) to protect Folsom Reservoir from adverse water supply impacts due to the Transfer Project.

NOW, THEREFORE, the parties have agreed as follows:

1) All water transferred by the Agency shall be water that has been previously stored in the Agency's MFP Reservoirs as of June 30, 2009. Transferred water shall be water that would not have been released but for the Transfer Project, and such water shall be made available as a result of lowering MFP Reservoirs below their "without project" combined storage December low point.

2) The Agency shall operate the MFP pursuant to the terms of this Agreement to avoid adverse impacts to the quantity of water Reclamation would otherwise store in Folsom Reservoir absent implementation of the Transfer Project. Potential water supply impacts from the Transfer Project shall be avoided through the accounting and operational procedures and

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requirements contained in Articles 3 through 7, inclusive, which shall apply so long as the Agency maintains a "Refill Reservation" as defined in Article 3(i).

3) The following definitions and procedures shall apply to this Agreement:

a) "Maximum Permissible Storage" shall mean that maximum quantity of water Reclamation can store in Folsom Reservoir without encroaching into the Flood Reservation.

b) "Flood Reservation" shall mean the amount of flood control space Reclamation must reserve in Folsom Reservoir pursuant to the U.S. Army Corps of Engineers Flood Control Diagram dated November 1986 and the additional flood storage space required by existing agreements between Reclamation and the Sacramento Area Flood Control Agency.

c) "Actual Storage" shall mean the quantity of water retained in Folsom Reservoir each day at midnight as reported by Reclamation.

d) "Filling Period" shall mean the period December 1 through June 30.

e) "Flood Release" shall mean the daily quantity of water (acre-feet) Reclamation releases from Folsom Reservoir to the American River below Lake Natoma to minimize or avoid encroachment into the Flood Reservation. Water released to the American River below Lake Natoma will be considered a Flood Release if: (1) Reclamation identifies a release as one for flood control purposes in its Folsom Lake Operations – Nimbus Release Log, or (2) releases are increased while the Delta is in "excess conditions" and Folsom Reservoir's Actual Storage is equal to or less than 3% of its Maximum Permissible Storage.

f) "Folsom Storage Deficiency" shall mean the daily difference, in acre-feet, between Folsom Reservoir's Maximum Permissible Storage and its Actual Storage during the Filling Period, less the cumulative amount, in acre-feet, of any Flood Releases during the Filling Period. Each day during the Filling Period, Reclamation shall compute the Folsom Storage Deficiency.

g) "Transfer Amount" shall mean the total amount of water PCWA releases from the MFP Reservoirs to implement the Transfer Project, not the amount of such water SDCWA actually receives. Under the Transfer Project, the Transfer Amount shall be no greater than 20,000 acre-feet.

h) "Transfer Storage Difference" shall mean the amount by which the actual MFP Reservoir storage is less than the projected "without transfer" MFP Reservoir storage, which shall be equal to the Transfer Amount.

i) "Refill Reservation" shall mean the combined excess storage capacity (acre-feet) that PCWA must leave vacant in its MFP Reservoirs at the December low point as a result of the Transfer Project when compared to "without project" carryover storage conditions in the MFP Reservoirs. The Refill Reservation shall initially be equal to the Transfer Storage Difference, and shall be reduced according to the provisions of Article 4 until it reaches zero.

4) During the Filling Period, on any day when Folsom Storage Deficiency is less than PCWA's Refill Reservation, then the Refill Reservation shall be reduced to equal Folsom Storage Deficiency. On any day when Folsom Storage Deficiency is greater than the Refill Reservation, there will be no change to the Refill Reservation.

5) As long as there is any remaining Refill Reservation, PCWA's following year combined MFP Reservoir maximum storage at its low point in December shall be limited as provided in this paragraph. The release of any additional water, above planned operation, required pursuant to paragraph 7 to meet the required carryover storage target may be scheduled by PG&E to maximize the power value of the water released but shall be completed no later than September 30th.

a) In any year when the forecasted (90% exceedance method) unimpaired April 1 through September 30 inflow to Folsom Reservoir is less than 600,000 acre feet, storage in MFP Reservoirs shall be limited by the terms of the February 20, 1963 agreement between the Agency and Reclamation.

b) In any year when the forecasted (90% exceedance method) unimpaired April 1 through September 30 inflow to Folsom Reservoir is equal to or greater than 600,000 acre feet, PCWA's combined MFP Reservoir maximum storage level at its low point in December shall be limited to 160,000 acre-feet less the Refill Reservation.

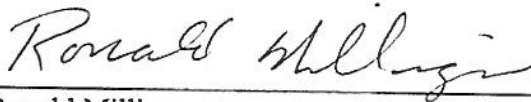
6) Except as provided in Article 7, when the Refill Reservation reaches zero, the Agency shall have no restriction on future diversions of water to storage in its MFP Reservoirs as a result of this Agreement, but shall comply with all other applicable laws, regulations, and agreements with regard to such operations.

7) Special Appeal – PCWA acknowledges that it may be possible for the Refill Reservation to reach zero, particularly if it occurs early in the Filling Period, and for the subsequent filling of MFP reservoirs to have an adverse on the quantity of water stored in Folsom Reservoir. If Reclamation feels that there is such an occurrence it shall have until July 1 to meet with PCWA and PG&E to detail the basis of its determination that an adverse impact has occurred. If there is a failure to reach agreement on the impact or as to appropriate corrective action, Reclamation may require the release of additional water from the MFP in that year only, such that PCWA's combined MFP Reservoir maximum storage level at its low point in December shall be limited to 160,000 acre-feet less the smaller of (i) the amount of adverse impact on Folsom Reservoir storage claimed by Reclamation, or (ii) one half of the transfer amount. Following the release of such additional water, the Refill Reservation shall be zero for the purposes of this Agreement.

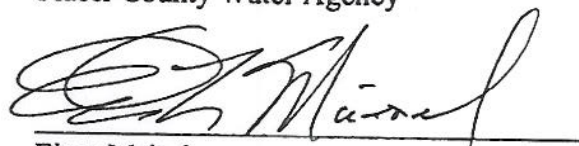
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IN WITNESS WHEREOF, the Parties hereto have executed this Agreement on the date first written.

United States of America
Bureau of Reclamation


Ronald Milligan

Placer County Water Agency


Einar Maisch,
Director of Strategic Affairs

Appendix 3
2009 Temporary Warren Act Contract

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
American River Division, Central Valley Project, California

TEMPORARY CONTRACT BETWEEN THE UNITED STATES
AND
SAN DIEGO COUNTY WATER AUTHORITY
PROVIDING FOR STORAGE OF NON-PROJECT WATER

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
American River Division, Central Valley Project, California

CONTRACT BETWEEN THE UNITED STATES
AND
SAN DIEGO COUNTY WATER AUTHORITY
PROVIDING FOR STORAGE OF NON-PROJECT WATER

THIS CONTRACT, made this _____ day of _____, 2009,
pursuant to the Act of June 17, 1902 (32 Stat. 388), and acts amendatory thereof or
supplementary thereto, including the Act of February 21, 1911 (36 Stat. 925), and Section 305
of the Reclamation States Emergency Drought Relief Act of 1991, enacted March 5, 1992
(106 Stat. 59), all collectively hereinafter referred to as the Federal Reclamation laws, between
the UNITED STATES OF AMERICA, hereinafter referred to as the United States, represented
by the officer executing this Contract, hereinafter referred to as the Contracting Officer, and
SAN DIEGO COUNTY WATER AUTHORITY, hereinafter referred to as the Contractor;

WITNESSETH, That:

EXPLANATORY RECITALS

[1st] WHEREAS, the United States has constructed and is operating the
Central Valley Project, California, for diversion, storage, carriage, distribution and beneficial
use, for flood control, irrigation, municipal, domestic, industrial, fish and wildlife mitigation,
protection and restoration, generation and distribution of electric energy, salinity control,
navigation and other beneficial uses, of waters of the Sacramento River, the American River,
the Trinity River, and the San Joaquin River and their tributaries; and

[2nd] WHEREAS, the Contractor asserts a right to a Non-Project Water supply for M&I purposes through its interest in the Middle Fork Project water rights of Placer County Water Agency and has requested the United States store said Non-Project Water in Excess Capacity in Folsom Reservoir and associated facilities, features of the American River Division, Central Valley Project; and

[3rd] WHEREAS, the United States is willing to store said Non-Project Water for the Contractor in Excess Capacity in said Project Facilities in accordance with the terms and conditions hereinafter stated; and

NOW, THEREFORE, in consideration of the covenants herein contained, the parties agree as follows:

DEFINITIONS

1. When used herein unless otherwise distinctly expressed, or manifestly incompatible with the intent of the parties as expressed in this Contract, the term:

(a) “Calendar Year” shall mean the period January 1 through December 31, both dates inclusive;

(b) “Contracting Officer” shall mean the Secretary of the Interior’s duly authorized representative acting pursuant to this Contract or applicable Reclamation law or regulation;

(c) “Contractor’s Boundaries” shall mean the geographic area within which the Contractor is authorized to serve Non-Project Water as set forth on Exhibit A, which may be modified in accordance with Article 24 without amendment of this Contract;

(d) Omitted;

(e) “Excess Capacity” shall mean capacity in the Project Facilities in excess of that needed to meet the Project’s authorized purposes, as determined solely by the Contracting Officer, which may be made available to store Non-Project Water;

(f) Omitted;

(g) Omitted;

(h) Omitted;

(i) Omitted;

(j) “Municipal and Industrial Water” or “M&I Water” shall mean Non-Project Water that is made available for purposes other than the commercial production of agricultural crops or livestock, including domestic use incidental thereto;

(k) “Non-Project Water” shall mean water acquired by or available to the Contractor from the source(s) identified in Exhibit C that has not been appropriated by the United States;

(l) Omitted;

(m) “Project” shall mean the Central Valley Project, owned by the United States and managed by the Department of the Interior, Bureau of Reclamation;

(n) “Project Facilities” shall mean Folsom Dam, Folsom Reservoir, Nimbus Dam, Nimbus Reservoir, and associated facilities, constructed as features of the American River Division, Central Valley Project;

(o) “Rates” shall mean the amount to be paid to the United States by the Contractor, as set forth in Exhibit B, for the use of Excess Capacity in the Project Facilities made available pursuant to this Contract;

(p) “RRA” shall mean the Reclamation Reform Act of October 12, 1982 (96 Stat. 1263), as amended;

(q) “Secretary” shall mean the Secretary of the Interior, a duly appointed successor, or an authorized representative acting pursuant to any authority of the Secretary and through any agency of the Department of the Interior; and

(r) “Year” shall mean the period from and including March 1 of the Calendar Year through the last day of February of the following Calendar Year.

TERM OF CONTRACT

2. This Contract shall become effective on the date hereinabove written and shall remain in effect through February 28, 2010: Provided, That upon written notice to the Contractor, this Contract may be terminated by the Contracting Officer at an earlier date, if the Contracting Officer determines that the Contractor has not been complying with one or more terms or conditions of this Contract.

INTRODUCTION, STORAGE, AND DELIVERY OF OF NON-PROJECT WATER

3. (a) During the term of this Contract, the Contractor may introduce up to 20,000 acre-feet of Non-Project Water into the Project Facilities, which introduced Non-Project Water shall be measured in accordance with Article 4 at Oxbow Dam or at another location(s) mutually agreed to in writing by the Contractor and the Contracting Officer. The United States shall store, as it deems necessary and appropriate in conjunction with Project operations, the Non-Project Water in Excess Capacity in the Project Facilities for release to the Contractor at Nimbus Dam or other location(s) mutually agreed to in writing by the Contracting Officer and the Contractor, in accordance with an approved schedule submitted by the Contractor pursuant to subdivision (c) of this Article: Provided, That the total quantity of

Non-Project Water delivered to the Contractor's Boundaries shall not exceed the quantity of Non-Project Water previously introduced into the Project Facilities by the Contractor at said point(s) of introduction, less: a five percent loss for non-Project Water stored under this Contract in Project Facilities; an estimated 20 percent Delta carriage loss, actual loss to be determined by the Department of Water Resources (DWR); and, an estimated three percent conveyance loss from the Delta to the Contractor's Boundaries, to be determined by DWR: Provided further, That the Contractor shall be solely responsible for any conveyance of the Non-Project Water from the point of release to the Contractor's Boundaries, including any use of California State Water Project facilities.

(a.1.) In the event the quantity of water diverted by the Contractor exceeds the quantity of Non-Project Water introduced into the Project Facilities less the losses referred to in subdivision (a) of this Article, the Contractor shall immediately take all reasonable actions to make available a like amount of water, plus conveyance loss, into the Project Facilities for use by the United States for Project purposes. The provisions of this subdivision are not exclusive and shall not bind the United States from exercising any other remedy, including the early termination of this Contract pursuant to Article 2 of this Contract.

(a.2) In the event it becomes necessary for the Contracting Officer to release or spill water from the Project Facilities for flood control or any other purpose, the quantity of water first obligated and/or spilled shall be deemed to be the Contractor's Non-Project Water to the extent that such water has been and/or is being introduced and/or stored in the Project Facilities: Provided, That the Contracting Officer will to the extent possible inform the Contractor by written notice, or otherwise, of any impending obligation or spill from the Project Facilities.

(b) All Non-Project Water stored and released to the Contractor pursuant to this Contract shall be used as M&I Water.

(c) Prior to the introduction of Non-Project Water into the Project Facilities, the Contractor shall submit a schedule to the Contracting Officer showing the quantities of Non-Project Water to be introduced into and stored in the Project Facilities, and the desired time or times for release of said Non-Project Water: Provided, That the Contractor is not required to initially schedule the maximum quantity of Non-Project Water for which the Contractor desires to introduce or store during the term of this Contract. The initial schedule and any revision(s) thereof shall be in a form acceptable to the Contracting Officer and shall be submitted at such times and in such manner as determined by the Contracting Officer. The Contractor shall not introduce Non-Project Water into the Project Facilities unless and until the schedule and any revision(s) thereof have been approved by the Contracting Officer.

(d) All Non-Project Water remaining in the Project Facilities upon expiration or termination of this Contract shall be deemed to be unused water donated to the United States for Project purposes. Further, all Non-Project Water made available for release to the Contractor from the Project Facilities and not accepted by the Contractor shall be deemed to be unused water donated to the United States for Project purposes.

(e) Unless otherwise agreed to in writing by the Contracting Officer, the Non-Project Water shall be introduced into, and stored for the Contractor through, existing Project Facilities. If temporary inflow or delivery facilities are required to effectuate the introduction of Non-Project Water into the Project Facilities or the storage of the Non-Project Water for the Contractor in the Project Facilities, the Contractor shall be responsible for all costs and expenses related to obtaining all necessary rights-of-way for such facilities, including the appropriate right-of-use agreement(s) or other authorizations issued by the United States

for any such facilities located on right-of-way for existing Project Facilities. The Contractor shall also be responsible for all costs and expenses associated with providing, installing, operating, maintaining, repairing, and replacing said inflow and delivery facilities. The Contractor hereby grants to the Contracting Officer access to all temporary inflow and delivery facilities installed by the Contractor.

(f) The introduction, storage, and release of Non-Project Water pursuant to this Contract will not be supported with Project-use energy. If electrical power is required to pump the Non-Project Water into, through or from the Project Facilities, the Contractor shall be responsible for the acquisition and payment of all electrical power and associated transmission service charges.

(g) The introduction of Non-Project Water into the Project Facilities by the Contractor shall be conditioned upon compliance by the Contractor with the environmental measures described in the environmental documentation prepared in connection with the execution of this Contract and with the terms of the applicable operations procedures approved by the Contracting Officer.

MEASUREMENT OF NON-PROJECT WATER

4. (a) All Non-Project Water shall be measured and recorded at the point(s) of introduction established pursuant to Article 3 herein, at the point(s) of release, or any other points requested by the Contracting Officer, with measurement devices acceptable to the Contracting Officer and the methods used to make such measurements shall be in accordance with sound engineering practices.

(b) Except for the measurement devices that are already in place at the Project Facilities and which are the responsibility of the United States, and unless otherwise agreed to in writing by the Contracting Officer, the Contractor, at its own cost and expense,

shall be responsible for providing, installing, operating, maintaining, repairing, and replacing all measurement devices required under this Contract in accordance with any right-of-use agreement(s) or other requisite authorization(s) issued by the United States. The Contractor shall be responsible for all costs associated with the issuance of such right-of-use agreement(s) and authorization(s). This provision shall apply to the extent that new measurement device are required because of the Contractor's use of the Project Facilities.

(c) The Contractor, [at a minimum](#), shall maintain accurate records of the quantity(ies) of Non-Project Water, expressed in acre-feet, introduced into, stored in, released from Project Facilities at the said authorized point(s) of introduction, at the point(s) of release, and delivered at the Contractor's boundaries, and shall provide such monthly records to the Contracting Officer by the 10th day of each succeeding month, and at such other times requested by the Contracting Officer, and in such manner as determined by the Contracting Officer. The Contractor may obtain any necessary data on measurements of the water releases from, and storage in, Project Facilities from the Central Valley Operations Office. For the purposes of this Contract, the Contracting Officer shall make all final determinations as to what quantities of non-Project Water have been introduced, stored and/or released in Project Facilities. Contractor may satisfy its obligations under this paragraph by submitting records maintained by PCWA, subject to approval by the Contracting Officer.

(d) Upon the request of either party to this Contract, the Contracting Officer shall investigate the accuracy of all measurements of Non-Project Water required by this Contract. If the investigation discloses errors in the recorded measurements, such errors shall be promptly corrected. If the investigation discloses that measurement devices are defective or inoperative, the Contracting Officer shall take any necessary actions to ensure that the responsible party makes the appropriate adjustments, repairs, or replacements to the

measurement devices. In the event the Contractor, as the responsible party, neglects or fails to make such adjustments, repairs, or replacements to the measurement devices within a reasonable time and to the reasonable satisfaction of the Contracting Officer, the Contracting Officer may cause such adjustments, repairs, or replacements to be made and the costs thereof shall be charged to the Contractor and the Contractor shall pay said charges to the United States immediately upon receipt of a detailed billing therefor. For any period of time during which accurate measurements of the Non-Project Water have not been made, the Contracting Officer shall consult with the Contractor prior to making a determination of the quantity of Non-Project Water delivered for that period of time and such determination by the Contracting Officer shall be final and binding on the Contractor.

OPERATION AND MAINTENANCE BY OPERATING NON-FEDERAL ENTITY

5. Omitted.

PAYMENTS AND ADJUSTMENTS

6. (a) The administrative costs for this Contract will be paid by the Contractor as provided in the executed reimbursable agreement No. 09-WC-20-3847.

(b) At the time the Contractor submits a schedule, or any revision(s) thereof pursuant to subdivision (c) of Article 3 herein, the Contractor shall make an advance payment to the United States equal to the total amount payable pursuant to the applicable Rates shown on Exhibit B for each acre-foot of Non-Project Water scheduled to be stored in the Project Facilities. Non-Project Water shall not be stored in the Project Facilities by the Contractor prior to such payment being received by the United States.

(c) Omitted.

(d) The amount of any overpayment by the Contractor by reason of the quantity of Non-Project Water stored in the Project Facilities pursuant to this Contract, as

conclusively determined by the Contracting Officer, having been less than the quantity which the Contractor otherwise under the provisions of this Contract would have been required to pay for, shall be applied first to any accrued indebtedness arising out of this Contract then due and owing to the United States by the Contractor. Any amount of such overpayment then remaining shall be refunded to the Contractor: Provided, however, That no refund shall be made by the United States to the Contractor for any quantity of Non-Project Water deemed to be unused water donated to the United States for Project purposes pursuant to subdivision (d) of Article 3 herein.

(e) All payments made by the Contractor pursuant to subdivision (b) of this Article shall be covered into the Reclamation Fund pursuant to Section 3 of the Act of February 21, 1911 (36 Stat. 925).

(f) The payment of the Rates set forth in this Article for the use of Excess Capacity are exclusive of any additional charges that the Contractor may assess its water users. In accordance with the Act of February 21, 1911 (36 Stat. 925), the Contractor may not impose on its water users any charge for the use of Excess Capacity that exceeds the amount paid to the United States: Provided, That the Contractor may also charge its water users such additional amounts as are necessary to cover the Contractor's reasonable administrative costs in contracting with the United States for the use of Excess Capacity in the Project Facilities.

MEDIUM FOR TRANSMITTING PAYMENTS

7. (a) All payments from the Contractor to the United States under this Contract shall be by the medium requested by the United States on or before the date payment is due. The required method of payment may include checks, wire transfers, or other types of payment specified by the United States.

239 (b) Upon execution of the Contract, the Contractor shall furnish the
240 Contracting Officer with the Contractor's taxpayer's identification number (TIN). The purpose
241 for requiring the Contractor's TIN is for collecting and reporting any delinquent amounts
242 arising out of the Contractor's relationship with the United States.

243 EXCESS CAPACITY

244 8. (a) The availability of Excess Capacity shall be determined solely by the
245 Contracting Officer. Nothing contained in this Contract shall limit or preclude the
246 United States from utilizing available capacity in the Project Facilities for Project Water
247 pursuant to Federal law, Reclamation law or policy, and existing contract(s); or (2) for using
248 Excess Capacity in the Project Facilities for other supplies of Non-Project Water.

249 (b) The Contracting Officer shall not be obligated to store and/or release
250 Non-Project Water during periods of maintenance or for other operating requirements.

251 (c) If at any time the Contracting Officer determines that there will not be
252 Excess Capacity in the Project Facilities sufficient to allow the Non-Project Water to be
253 introduced into, stored, and/or released in accordance with an approved schedule submitted by
254 the Contractor, the Contracting Officer shall so notify the Contractor in writing. Within 24
255 hours of said notice, the Contractor shall revise its schedule accordingly.

256 (d) No provision of this Contract shall be construed in any way as a basis
257 for the Contractor to establish a priority to or a permanent right to the use of Excess Capacity
258 in the Project Facilities nor to set a precedent to obligate the United States to enter into
259 contracts with any other entities or individuals for the conveyance or storage of Non-Project
260 Water.

261 ACREAGE LIMITATION PROVISIONS

262 9. Omitted.

263 RECEIPT AND DISTRIBUTION OF NON-PROJECT WATER--
264 SALE, TRANSFER, OR EXCHANGE OF NON-PROJECT WATER

265 10. (a) The parties hereto acknowledge that this Contract does not grant any
266 permission or entitlement to the Contractor to extract and/or divert Non-Project Water from the
267 source(s) described on Exhibit C or to change the nature or place of use of its rights to said
268 Non-Project Water in any way. It is the responsibility of the Contractor to comply with all
269 applicable Federal, State, and local laws, including, but not limited to, State water law in
270 relation to the Non-Project Water. It is expressly understood by the parties that the
271 United States is only providing storage capacity for the Non-Project Water and does not claim
272 any interest in the acquisition or use of the Non-Project Water beyond the terms specifically set
273 forth in this Contract.

274 (b) The Contracting Officer makes no representations as to the accuracy of
275 the description or of the validity of the Contractor's rights to the Non-Project Water described
276 in Exhibit C.

277 (c) No sale, transfer, or exchange of the Non-Project Water stored under this
278 Contract may take place without the prior written approval of the Contracting Officer.

279 WATER CONSERVATION

280 11. Prior to the release of water stored in federally constructed or federally financed
281 facilities pursuant to this Contract, the Contractor shall develop a water conservation plan,
282 consistent with the plans required by Section 210(b) of the RRA and Part 427.1 of the Water
283 Conservation Rules and Regulations effective January 1, 1998.

284 UNITED STATES NOT LIABLE

285 12. (a) The United States, its officers, agents and employees, shall not be
286 responsible for the control, care, or distribution of the Non-Project Water before it is
287 introduced into or after it is released from the Project Facilities.

(b) The Contractor shall indemnify and hold the United States, its officers, agents and employees harmless from legal liability for damages of any nature whatsoever arising out of any actions or omissions of the Contractor, its officers, agents and employees, resulting from the Contractor's performance of this Contract, including the manner or method in which the Non-Project Water identified on Exhibit C is introduced into, stored, and released from the Project Facilities. The Contractor further releases the United States, its officers, agents and employees, including the Operating Non-Federal Entity, from every claim for damage to persons or property, direct or indirect, resulting from the Contracting Officer's determination of the quantity of Excess Capacity available in the Project Facilities for storage of the Contractor's Non-Project Water, the determination that the Non-Project Water introduced into Project Facilities must be terminated, and the elimination from Exhibit C of any source(s) of Non-Project Water. Nothing contained in this Article shall be construed as an assumption of liability by the Contractor with respect to such matters.

OPINIONS AND DETERMINATIONS

13. (a) Where the terms of this Contract provide for actions to be based upon the opinion or determination of either party to this Contract, said terms shall not be construed as permitting such action to be predicated upon arbitrary, capricious, or unreasonable opinions or determinations. Both parties, notwithstanding any other provisions of this Contract, expressly reserve the right to seek relief from and appropriate adjustment for any such arbitrary, capricious, or unreasonable opinion or determination. Each opinion or determination by either party shall be provided in a timely manner. Nothing in subdivision (a) of this Article is intended to or shall affect or alter the standard of judicial review applicable under Federal law to any opinion or determination implementing a specific provision of Federal law embodied in statute or regulation.

(b) The Contracting Officer shall have the right to make determinations necessary to administer this Contract that are consistent with the provisions of this Contract, the laws of the United States and the State of California, and the rules and regulations promulgated by the Secretary. Such determinations shall be made in consultation with the Contractor to the extent reasonably practicable.

PROTECTION OF WATER AND AIR QUALITY

14. (a) Project Facilities used to store and release Non-Project Water to the Contractor shall be operated and maintained in the most practical manner to maintain the quality of the Non-Project Water at the highest level possible as determined by the Contracting Officer: Provided, That the United States does not warrant the quality of the Non-Project Water delivered to the Contractor and is under no obligation to furnish or construct water treatment facilities to maintain or improve the quality of the Non-Project Water delivered to the Contractor.

(b) The Contractor shall comply with all applicable water and air pollution laws and regulations of the United States and the State of California; and shall obtain all required permits or licenses from the appropriate Federal, State, or local authorities necessary for the storage and delivery of Non-Project Water by the Contractor; and shall be responsible for compliance with all Federal, State, and local water quality standards applicable to surface and subsurface drainage and/or discharges generated through the use of Project Facilities or Contractor facilities or Non-Project Water provided by the Contractor within the Contractor's Boundaries.

(c) This Article shall not affect or alter any legal obligations of the Secretary to provide drainage or other discharge services.

(d) The Non-Project Water introduced into the Project Facilities shall be of such quality, as determined solely by the Contracting Officer, as to not significantly degrade the quality of the Project water. If it is determined by the Contracting Officer that the quality of the Non-Project Water from any source(s) identified in Exhibit C will significantly degrade the quality of Project water in or introduced into the Project Facilities, the Contractor shall, upon receipt of a written notice from the Contracting Officer, arrange for the immediate termination of the introduction of Non-Project Water from such sources(s) into the Project Facilities, and Exhibit C shall be modified to delete such sources(s) of Non-Project Water.

(e) The Contracting Officer has determined that the Non-Project Water to be stored for the Contractor under this Contract is derived from the same American River watershed as Project water delivered to the American River Division. Therefore, except as reserved by the Contracting Officer pursuant to subsection (g) of this Article, the Contracting Officer has determined that no water quality analyses are required to store the Contractor's supply of Non-Project Water under this Contract.

(f) Omitted.

(g) The Contracting Officer reserves the right to require additional analyses to ensure the Non-Project Water meets the Bureau of Reclamation's water quality acceptance criteria.

CHARGES FOR DELINQUENT PAYMENTS

15. (a) The Contractor shall be subject to interest, administrative, and penalty charges on delinquent payments. If a payment is not received by the due date, the Contractor shall pay an interest charge on the delinquent payment for each day the payment is delinquent beyond the due date. If a payment becomes 60 days delinquent, in addition to the interest charge, the Contractor shall pay an administrative charge to cover additional costs of billing and processing the delinquent payment. If a payment is delinquent 90 days or more, in addition to the interest and administrative charges, the Contractor shall pay a penalty charge for each day the payment is delinquent beyond the due date, based on the remaining balance of the payment due at the rate of 6 percent per year. The Contractor shall also pay any fees incurred for debt collection services associated with a delinquent payment.

(b) The interest charge rate shall be the greater of either the rate prescribed quarterly in the Federal Register by the Department of the Treasury for application to overdue payments or the interest rate of 0.5 percent per month. The interest charge rate will be determined as of the due date and remain fixed for the duration of the delinquent period.

(c) When a partial payment on a delinquent account is received, the amount received shall be applied first to the penalty charges, second to the administrative charges, third to the accrued interest, and finally to the overdue payment.

EQUAL EMPLOYMENT OPPORTUNITY

16. During the performance of this Contract, the Contractor agrees as follows:

(a) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, disability, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, disability, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this nondiscrimination clause.

(b) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, disability, or national origin.

(c) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the Contracting Officer, advising the labor union or workers' representative of the Contractor's commitments under Section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(d) The Contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(e) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the Contracting Agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(f) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Contract or with any of such rules, regulations, or orders, this Contract may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965 or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(g) The Contractor will include the provisions of paragraphs (a) through (f) in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions,

including sanctions for noncompliance: *Provided, however,* That in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

CERTIFICATION OF NONSEGREGATED FACILITIES

17. The Contractor hereby certifies that it does not maintain or provide for its employees any segregated facilities at any of its establishments and that it does not permit its employees to perform their services at any location under its control where segregated facilities are maintained. It certifies further that it will not maintain or provide for its employees any segregated facilities at any of its establishments and that it will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this certification is a violation of the Equal Employment Opportunity clause in this Contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, disability, or otherwise. The Contractor further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Employment Opportunity clause; that it will retain such certifications in its files; and that it will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES

A Certification of Nonsegregated Facilities must be submitted prior to the award of a subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal Employment Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually). Note: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

COMPLIANCE WITH CIVIL RIGHTS LAWS AND REGULATIONS

18. (a) The Contractor shall comply with Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d), Section 504 of the Rehabilitation Act of 1973 (P.L. 93-112, as amended), the Age Discrimination Act of 1975 (42 U.S.C. 6101, *et seq.*), Title II of the Americans with Disabilities Act of 1990 if the entity is a State or local government entity [Title III if the entity is a non-government entity], and any other applicable civil rights laws, as well as with their respective implementing regulations and guidelines imposed by the U.S. Department of the Interior and/or Bureau of Reclamation.

(b) These statutes require that no person in the United States shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving financial assistance from the Bureau of Reclamation on the grounds of race, color, national origin, disability, or age. By executing this Contract, the Contractor agrees to immediately take any measures necessary to implement this obligation, including permitting officials of the United States to inspect premises, programs, and documents.

(c) The Contractor makes this agreement in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property discounts, or other Federal financial assistance extended after the date hereof to the Contractor by the Bureau of Reclamation, including installment payments after such date on account of arrangements for Federal financial assistance which were approved before such date. The Contractor recognizes and agrees that such Federal assistance will be extended in reliance on the representations and agreements made in this Article and that the United States reserves the right to seek judicial enforcement thereof.

(d) Complaints of discrimination against the Contractor shall be investigated by the Contracting Officer's Office of Civil Rights.

GENERAL OBLIGATION--BENEFITS CONDITIONED UPON PAYMENT

19. (a) The obligation of the Contractor to pay the United States as provided in this Contract is a general obligation of the Contractor notwithstanding the manner in which the obligation may be distributed among the Contractor's water users and notwithstanding the default of individual water users in their obligation to the Contractor.

(b) The payment of charges becoming due pursuant to this Contract is a condition precedent to receiving benefits under this Contract. The United States shall not make Non-Project Water available to the Contractor through Project Facilities during any period in which the Contractor is in arrears in the advance payment of Rates and charges due the United States. The Contractor shall not deliver Non-Project Water under the terms and conditions of this Contract for lands or parties that are in arrears in the advance payment of rates and charges as levied or established by the Contractor.

487 BOOKS, RECORDS, AND REPORTS

488 20. The Contractor shall establish and maintain accounts and other books and
489 records pertaining to administration of the terms and conditions of this Contract, including
490 the Contractor's financial transactions; water supply data; project land and rights-of-way
491 use agreements; the water users' land-use (crop census), land-ownership, land-leasing, and
492 water-use data; and other matters that the Contracting Officer may require. Reports shall be
493 furnished to the Contracting Officer in such form and on such date or dates as the Contracting
494 Officer may require. Subject to applicable Federal laws and regulations, each party to this
495 Contract shall have the right during office hours to examine and make copies of the other
496 party's books and records relating to matters covered by this Contract.

497 CONTINGENT UPON APPROPRIATION OR ALLOTMENT OF FUNDS

498 21. The expenditure or advance of any money or the performance of any obligation
499 of the United States under this Contract shall be contingent upon appropriation or allotment of
500 funds. Absence of appropriation or allotment of funds shall not relieve the Contractor from
501 any obligations under this Contract. No liability shall accrue to the United States in case funds
502 are not appropriated or allotted.

503 ASSIGNMENT LIMITED--SUCCESSORS AND ASSIGNS OBLIGATED

504 22. The provisions of this Contract shall apply to and bind the successors and
505 assigns of the parties hereto, but no assignment or transfer of this Contract or any right or
506 interest therein by either party shall be valid until approved in writing by the other party.

507 OFFICIALS NOT TO BENEFIT

508 23. No Member of or Delegate to the Congress, Resident Commissioner, or official
509 of the Contractor shall benefit from this Contract other than as a water user or landowner in the
510 same manner as other water users or landowners.

511 CHANGES IN CONTRACTOR'S ORGANIZATION

512 24. While this Contract is in effect, no change may be made in the Contractor's
513 organization, by inclusion or exclusion of lands or by any other changes which may affect the
514 respective rights, obligations, privileges, and duties of either the United States or the
515 Contractor under this Contract including, but not limited to, dissolution, consolidation, or
516 merger, except upon the Contracting Officer's written consent.

517 NOTICES

518 25. Any notice, demand, or request authorized or required by this Contract
519 shall be deemed to have been given, on behalf of the Contractor, when mailed, postage
520 prepaid, or delivered to the Area Manager, Bureau of Reclamation, Central California Area
521 Office, 7794 Folsom Dam Rd., Folsom, CA 95630-1799, and on behalf of the United States,
522 when mailed, postage prepaid, or delivered to the Chair of the Board of Directors of the San

Diego County Water Authority, 4677 Overland Avenue, San Diego, CA 92123. The designation of the addressee or the address may be changed by notice given in the same manner as provided in this Article for other notices.

INCORPORATION OF EXHIBITS

26. Exhibits A through C are attached hereto and incorporated herein by reference.

CONTRACT DRAFTING CONSIDERATIONS

27. The articles or any portions thereof in this Contract that are double-spaced have been drafted, negotiated, and reviewed by the parties hereto, each of whom is sophisticated in the matters to which this Contract pertains, and no one party shall be considered to have drafted the stated articles.

IN WITNESS WHEREOF, the parties hereto have executed this Contract as of the day and year first above written.

UNITED STATES OF AMERICA

By: _____
Area Manager
Central California Area Office
Bureau of Reclamation

(SEAL) SAN DIEGO COUNTY WATER AUTHORITY

By: _____
General Manager

Attest:

By: _____
Clerk of the Board

[illegible]

EXHIBIT B
SAN DIEGO COUNTY WATER AUTHORITY
YEAR 2009 CONVEYANCE RATES
(Per Acre-Foot)

Cost Component	(1) M&I Cost of Service
Water Marketing	\$3.48
Storage	
O&M	\$8.31
Capital	\$3.47
Other Cost*	\$2.45
Total:	\$17.71

(1) The M&I Cost of Service Rate is applicable to Non-Project Water delivered for municipal and industrial purposes. See definition of “Municipal and Industrial Water” in subdivision (j) of Article 1 of this Contract.

* Represents a charge to all M&I water contractors for Deferred Interest, Programmatic EIS costs capitalized, and other costs.

546
547

EXHIBIT C
SAN DIEGO COUNTY WATER AUTHORITY
SOURCE(S) OF CONTRACTOR’S NON-PROJECT WATER

The source of the Contractor’s Non-Project Water supply is described herein below:

- (a) Middle Fork American River Project Water, under Placer County Water Agency’s (PCWA) Permits 13856 and 13858, made available to the Contractor in accordance with the agreement between the San Diego County Water Authority and PCWA entitled, “Water Purchase Agreement Between San Diego County Water Authority and Placer County Water Agency for Temporary 2009 Water Purchase,” dated March 20, 2009 (Agreement).

Appendix 4

Interagency Fish Rescue Strategy



NOAA's National Marine
Fisheries Service



California Department
of Fish and Game



U.S. Fish and
Wildlife Service

MEMORANDUM

TO: NMFS Area Office Supervisors – Arcata, Santa Rosa, Sacramento, &
Long Beach
DFG Regional Supervisors – Regions 1, 2, 3, 4 and 5
FWS Project Leaders – Arcata FWO, Red Bluff FWO, Stockton FWO, Ventura
FWO, Carlsbad FWO, California-Nevada FHC, Coleman NFH

FROM: Rod McInnis, Regional Administrator, NMFS Southwest Region
Don Koch, Director, California DFG
Ren Lohofener, Regional Director, US FWS, Region 8

SUBJECT: Interagency Fish Rescue Strategy

On February 17, 2009, representatives from our three agencies, researchers from University of California at Davis and Humboldt State Universities, and staff from the Department of Water Resources (DWR) and Bureau of Reclamation (BOR) met via teleconference to address important questions involving potential rescue of salmon and steelhead throughout the State of California for 2009. According to the DWR and BOR, 2009 is shaping up to be another dry water year – the third year in row. Carry-over storage of water in Shasta Reservoir, Oroville Reservoir, and other impoundments is well below normal due to below average precipitation in 2007 and 2008. Long-range forecasts have led DWR and BOR to initiate serious planning for another critically dry year in 2009, and perhaps beyond. On Friday February 27, 2009, the Governor of California declared a statewide drought emergency.

Even during normal water years, fish rescue operations are not uncommon. With the bleak water year predictions, the agencies and researchers determined it was prudent to develop technically sound strategies on how to approach the fish rescue situation this year and make sure our three agencies were approaching the possible challenge in a coordinated and consistent manner. Attached is our interagency strategy to address fish rescues for 2009. Because we are stepping up our coordination and adding more structure to our rescue approaches, we would also like to apply the strategy in 2010. We intend to evaluate the results of applying the strategy this season and during 2010 and determine whether and how best to extend it. If you have any questions, I encourage you to contact Russ Strach (NMFS) at 916-930-3621, John Engbring (FWS) 916-414-6474, or Neil Manji (DFG) 916-445-3181.

Attachment

cc: Dr Josh Israel – UC Davis
Dr Walt Duffy – Humboldt State University
Lester Snow – DWR
Don Glaser - BOR

2009 and 2010
Interagency Fish Rescue Strategy
National Marine Fisheries Service, Southwest Region
CA Department of Fish and Game
US Fish and Wildlife Service, Region 8

Key Rescue Objectives

1. To ameliorate short-term, survival bottlenecks (water temperature, flow, etc) and boost chances for survival of distressed salmonids.
2. In view of longer-term recovery efforts, perpetuate species at the greatest risk of extinction.
3. To learn more about the effectiveness of various rescue approaches catalogue areas within the hydrological system most prone to stranding episodes during dry years, and use this information as an indicator for development of Habitat Conservation Plans and/or collaboration with agencies to prevent future fish strandings.
4. To educate the public and be responsive to high priority stakeholder inquiries.

Key Points of Agreement

1. California Department of Fish and Game (DFG) will serve as the lead fishery agency for all fish rescue actions. In that capacity, DFG will make the final decision about whether to pursue a rescue effort in accordance with the Key Rescue Objectives and Principles listed below, in coordination with NOAA's National Marine Fisheries Service (NMFS) and US Fish and Wildlife Service (FWS).
2. DFG will form ad hoc teams (as needed) in 2009 and 2010, to conduct fish rescues. The teams will be comprised of staff from DFG, NMFS, FWS, DWR and BOR, as well as appropriate partners and cooperating entities.
3. The fishery agencies generally consider fish rescue efforts a last resort because of:
 - (a) long-term survival benefits of such activities is unclear;
 - (b) fish rescues can mask important underlying land and water development problems that might be causing or contributing to the stranding of fish (in some cases, resource managers may know causes of stranding or even expect it in some years, dependent upon year type and anthropomorphic activities/water management);
 - (c) drought conditions, some degree of periodically disconnected habitats and stranding, are natural events and likely important to natural selection processes;
 - (d) unknown consequences of introducing rescued fish to planted areas; and
 - (e) some folks may view fish rescues as a conservation measure that allows continuation of activities which impact fish.

4. The practice of fish rescues is relatively unstudied, so research designs and monitoring should be developed to better inform future management decisions.
5. Few requests to rescue fish are initiated by agency staff. Most rescues are requested by stakeholder groups and members of the public. The fishery agencies have not clearly established their fish rescue strategy and objectives, so stakeholders have not always received consistent agency feedback for actions taken or not taken by the agencies.
6. Below under Permits and Authorizations, we identify the various entities with Endangered Species Act (ESA) take authorizations for salmon and steelhead rescues. The fishery agencies can now more readily direct interested stakeholder groups to one or more entities on that list to address fish rescues.
7. The fishery agencies will develop a State-wide map of known areas prone to fish stranding during years of drought or recurring water management operations. This would be a start in developing a standardized program that would include these areas for monitoring during dry years.

Key Rescue Principles Discussed

The following items were raised by the participants as issues to consider in developing a Statewide Fish Rescue Plan.

1. Fish rescue activities will prioritize those species at greatest risk of extinction. For example, endangered salmon would be rescued over those that are threatened, and threatened species would be rescued before those that are not listed under the ESA. Within a species, independent populations would be rescued before dependent populations because of their importance to the persistence of the overall species.
2. Sacramento River winter-run Chinook salmon, central California coastal coho salmon (CCC coho), and southern California steelhead are all listed as endangered and would, therefore, receive the greatest priority for rescue efforts.
3. Adult salmon will generally be rescued over juveniles because there is often high juvenile mortality in the freshwater environment; however, some juveniles may be at critically low levels and rescue efforts would be prioritized equally with adults. Agency staff raised particular concern about the status of central California coast coho salmon, particularly coho south of San Francisco, and in some cases endangered southern California steelhead. Because of their very low abundances, the rescue of juveniles for these two species might also be necessary.
4. All rescued fish will be relocated to the nearest suitable upstream or downstream habitat within the same stream or river to the maximum extent possible. The agencies will also consider Hazard Analysis and Critical Control Point Plans (HACCP) for relocations (hold until conditions improve, place back into native stream). Recolonizing desirable habitats should be accompanied by effectiveness monitoring and management plans to gauge success.

5. If suitable habitat within the same stream or river is unavailable or is fully occupied, DFG will make a determination in consultation with the partner agencies about whether to relocate the rescued fish to suitable habitat in a nearby stream or river or relocate the rescued fish to a recovery facility, if available, for rearing or propagation. Development of an HACCP should be considered if fish are being relocated to a facility.
6. Captive rearing should be accompanied with adaptive management plans and related studies. Relocated fish will generally be introduced within the same footprint of their current distribution.
7. Translocation of rescued fish can create new ecological and demographic issues such as exposure of translocated fish to new diseases, introduction of diseases to resident species, and competition with resident fish of the same or different species. Fish relocated to other tributaries/basins may stray as adults, affecting recruitment of individual populations; and genetic issues, e.g., straying may lead to introgression with native populations (homogeneity, e.g. Central Valley fall-run Chinook salmon) or other runs (hybridization). Translocation above hatchery operations will generally be avoided due to concerns about the introduction of new diseases. These concerns can be offset when considered in light of the risk of extinction to any specific natural dependent or independent population and the availability of appropriate upstream refugia in historic habitat or identified critical habitat. Consideration will be made for hatcheries that are certified “disease free” in critical habitat.

Documentation

1. The three fishery agencies will develop a standard form to assess consistency with the key objectives and principles outlined in this strategy. At a minimum the standard form would document the fish rescue objective, estimated number of fish to be rescued, criteria for decision, type of rescue operation, HACCP analysis, desired outcome, and how the outcome would be monitored and evaluated. Completed forms would be shared with agency staff, stakeholder groups, and interested members of the public.
2. Instead of pursuing annual and somewhat ad hoc approaches to address fish rescue challenges, agency staff recommended a more comprehensive planning approach and suggested development of a Fish Rescue Strategic Plan for California. Because fish rescue activities are recurring and could worsen as a result of successive dry years, and increased pressure on water and land development, a more complete multi-year Fish Rescue Strategic Plan¹ is needed.

Permits and Authorizations

NMFS has already issued ESA permitting authorizations to several entities to address take of listed salmon/steelhead triggered by stranding.

¹ A Fish Rescue Strategic Plan would not be specific to years. It would specify what water-year types would trigger implementing Strategic Plan actions and identify other triggers. It would be updated on some regular cycle to keep it current, define what kind of actions would be initiated and by whom when defined events or triggers occur. Standard protocol could also be included for locations, species and periods where stranding situations can be expected to occur (Spring-run on Butte Creek, late May-June; Deer Creek below Stanford Vina Dam late May-June, etc)The flow chart provided with the 2009 Plan could be broadened to identify other key decision points.

Below is a summary of those authorizations:

- Under section 4(d) of the ESA, DFG has statewide authority to salvage or rescue any salmon or steelhead listed as a threatened species under the ESA.
- There are also a few section 10(a)(1)(A) permits that currently authorize fish rescue/relocation of endangered CCC coho salmon. DFG's section 10(a)(1)(a) permit (1067M3) authorizes rescue of juvenile CCC coho salmon throughout the ESU.
- The National Park Service has a section 10(a)(1)(a) permit (#1046) that authorizes rescue of juvenile CCC coho salmon, CCC steelhead, and CC Chinook salmon in specific watersheds in Marin, San Mateo, and Contra Costa Counties.
- The Salmon Protection and Watershed Network (SPAWN) also has a section 10(a)(1)(a) permit (#1162M3) that authorizes rescue of juvenile CCC coho salmon and CCC steelhead within the San Geronimo Creek watershed, tributary to Lagunitas Creek, Marin County.

When salmon or steelhead listed as endangered need to be rescued and an ESA take authorizing mechanism is not available, NMFS Office of Law Enforcement (OLE) will rely on NMFS managers in 2009 and 2010 to determine on a case-by-case basis whether OLE should get involved.

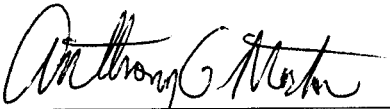
Other Considerations

1. Additional, but limited hatchery capacity exists throughout the state. Livingstone Stone National Fish Hatchery (NFH) could accommodate up to 250 more adult winter-run Chinook and some spring-run Chinook salmon, if necessary. However, there may not be sufficient capacity for egg incubation or juvenile rearing. The following should be considered when deciding whether or not to relocate adults to Livingston Stone NFH or other hatchery facilities:

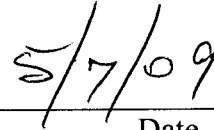
- (a) If habitat conditions become suitable and the fish have not been treated with restricted chemicals, then consider returning adults to the environment to spawn.
- (b) If necessary, spawn rescued adults at the hatchery to avoid loss of gametes.
- (c) If there is suitable incubation space at the facility, then incubate eggs on-site, otherwise attempt in-stream incubation at suitable locations.
- (d) If there is suitable rearing space available at the facility, then rear fry/juveniles on-site, otherwise release fry/juveniles at a suitable habitat location.

2. In some cases the agencies might need to consider translocation of fish above major reservoirs. These cases would be considered experimental and additional tagging and related monitoring and studies would need to be implemented. Landowner assurances might also be needed if ESA/CESA-listed species were introduced outside their current range and translocation considerations identified above would need to be considered. NMFS and DFG will collaborate to determine what form of tailor-fit assurance may be appropriate based on site-specific circumstances.

3. Not all stranded adult fish may be suitable for relocation. In cases where fish have visible signs of disease, avoid relocation and exposure to healthy populations.
4. A communication plan should be developed for geographic points of contact.
5. If drought conditions persist beyond 2009, the agencies recognize the likelihood that additional interventions and conservation facilities might be needed in 2010, and perhaps beyond.



for Rodney McInnis, Regional Administrator
Southwest Region
National Marine Fisheries Service



Date

Donald Koch, Director
California Department of Fish and Game

Date

Ren Lohofener, Regional Director
U.S. Department Fish and Wildlife Service
California-Nevada Region 8

Date